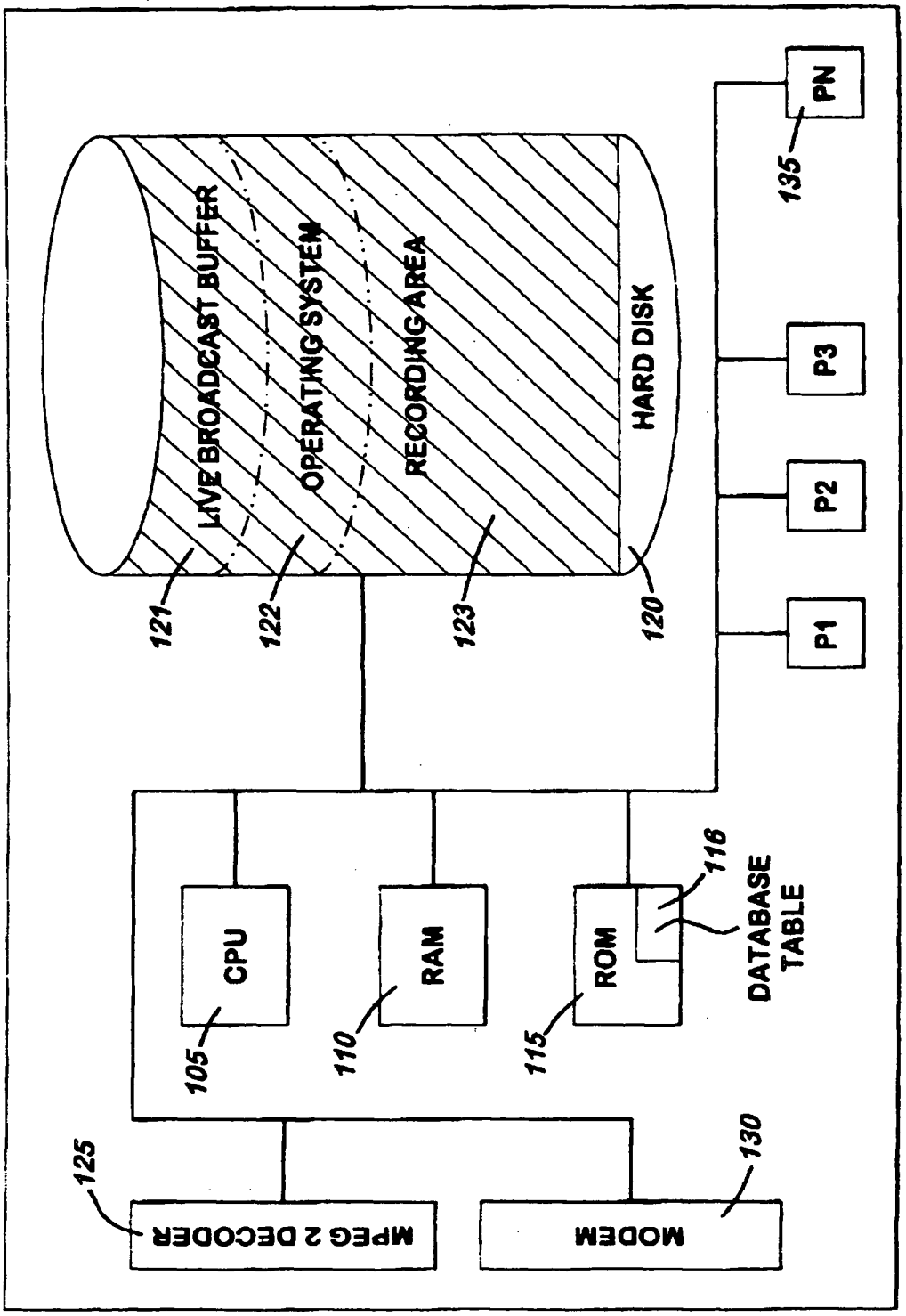
LIVE BROADCAST BUFFER
OPERATING SYSTEM
RECORDING AREA
HARD DISK
121
122
123
120
PN
135
P3
P2
P1
CPU
105
RAM
110
ROM
115
116
DATABASE TABLE
MPEG 2 DECODER
125
MODEM
130
100

Fig. 1

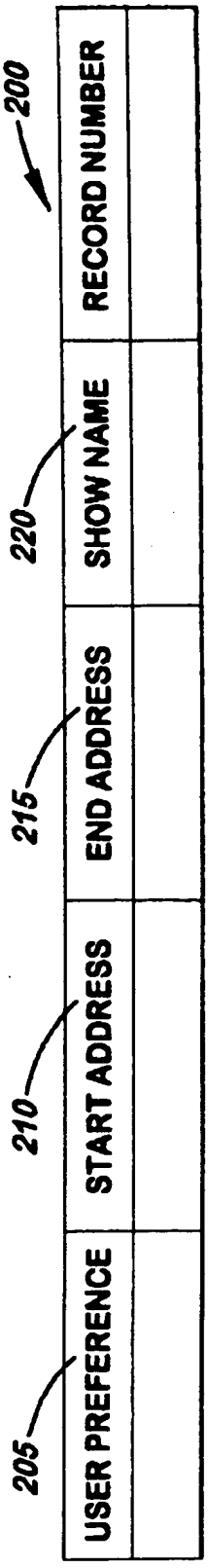
200
205
USER PREFERENCE
210
START ADDRESS
215
END ADDRESS
220
SHOW NAME
RECORD NUMBER

Fig. 2

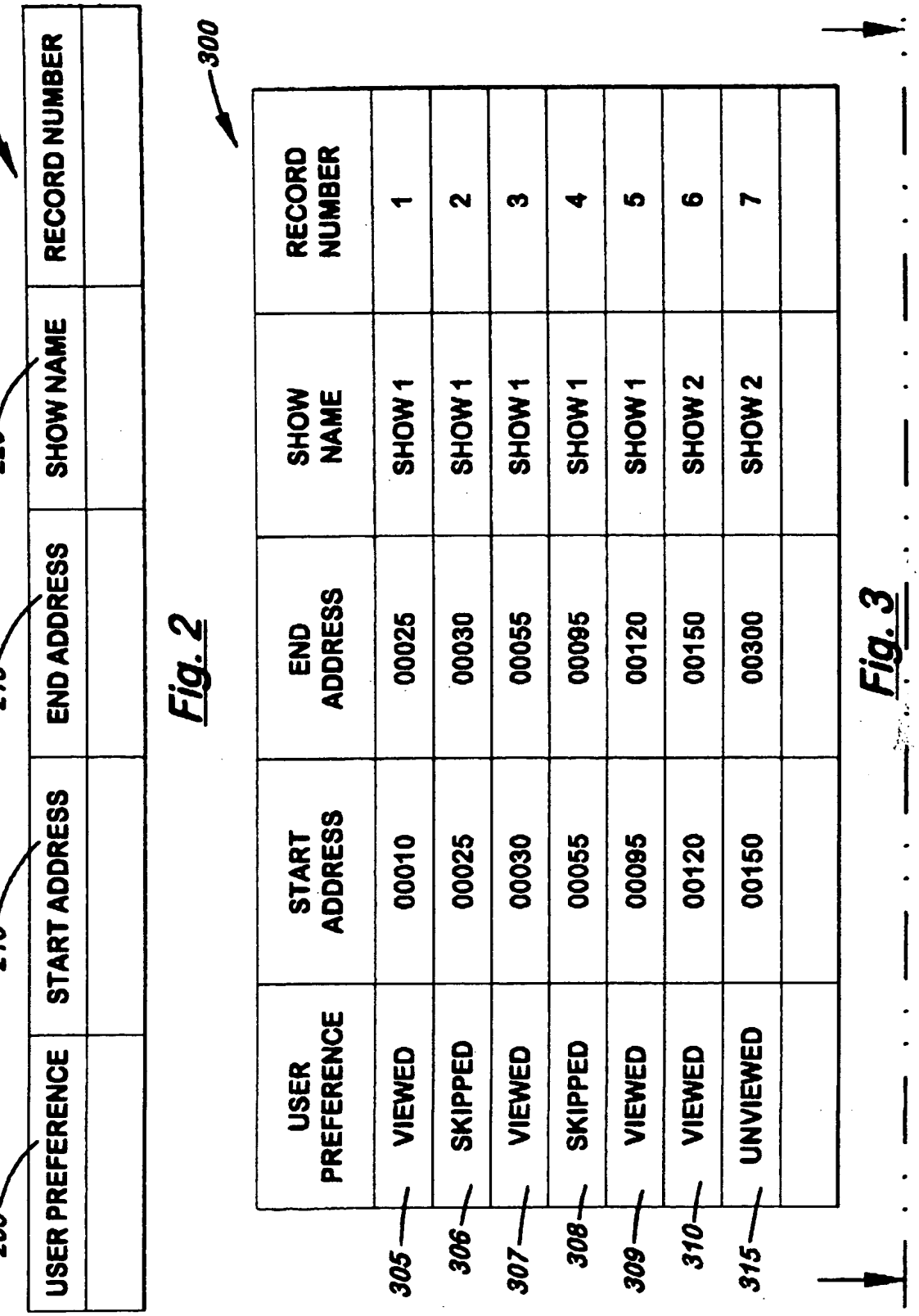
300
USER PREFERENCE
START ADDRESS
END ADDRESS
SHOW NAME
RECORD NUMBER
305
VIEWED
00010
00025
SHOW 1
1
306
SKIPPED
00025
00030
SHOW 1
2
307
VIEWED
00030
00055
SHOW 1
3
308
SKIPPED
00055
00095
SHOW 1
4
309
VIEWED
00095
00120
SHOW 1
5
310
VIEWED
00120
00150
SHOW 2
6
315
UNVIEWED
00150
00300
SHOW 2
7

Fig. 3

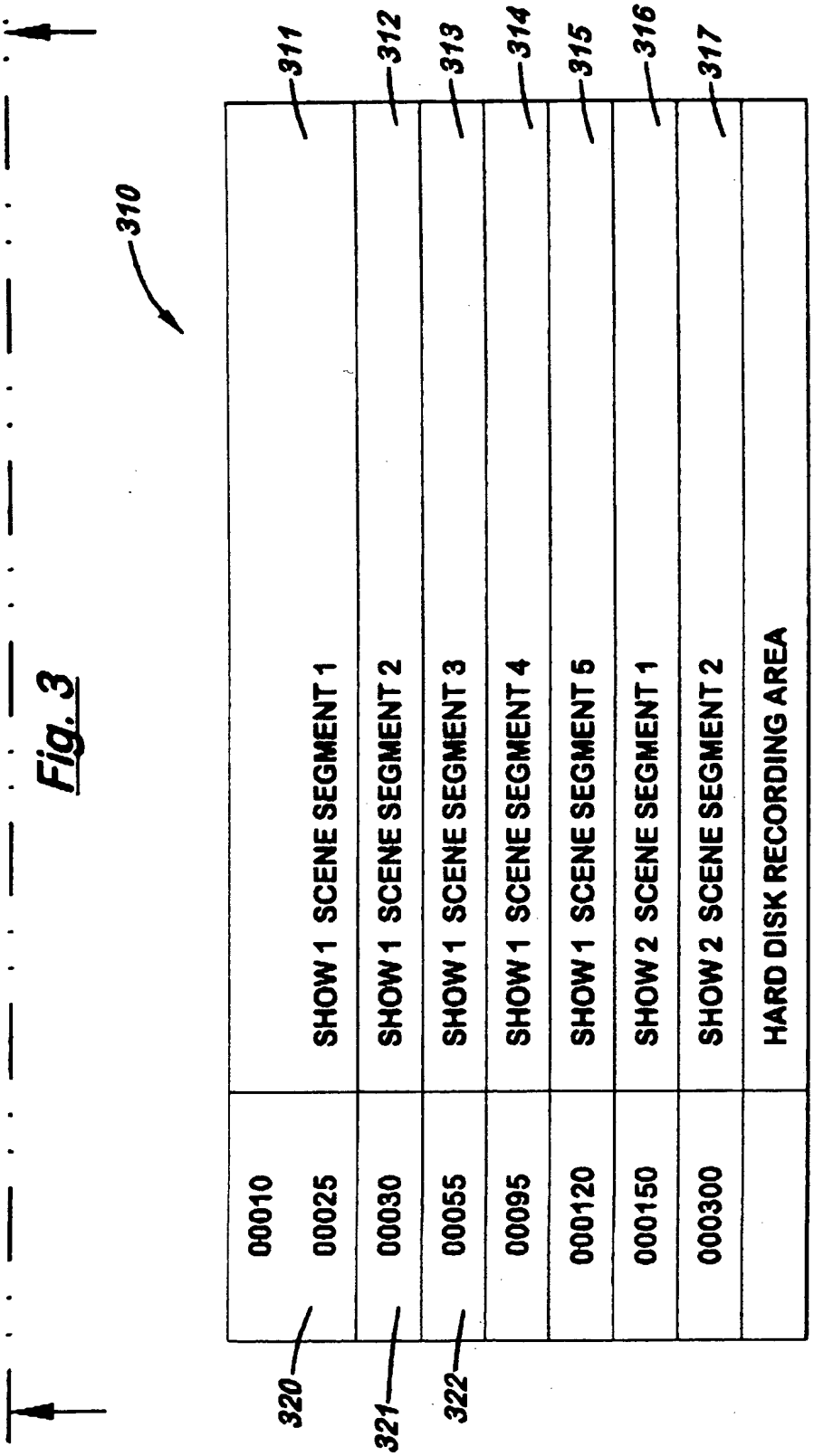
310
311
312
313
314
315
316
317
320
321
322
00010
00025
00030
00055
00095
000120
000150
000300
SHOW 1 SCENE SEGMENT 1
SHOW 1 SCENE SEGMENT 2
SHOW 1 SCENE SEGMENT 3
SHOW 1 SCENE SEGMENT 4
SHOW 1 SCENE SEGMENT 5
SHOW 2 SCENE SEGMENT 1
SHOW 2 SCENE SEGMENT 2
HARD DISK RECORDING AREA

Fig. 3

400

USER PREFERENCE	START ADDRESS	END ADDRESS	SHOW NAME	RECORD NUMBER
VIEWED	00010	00025	SHOW 1	1
VIEWED	00030	00055	SHOW 1	2
VIEWED	00095	00120	SHOW 1	3
VIEWED	00120	00150	SHOW 2	4
UNVIEWED	00150	00300	SHOW 2	5

405
406
407
408

Fig. 4

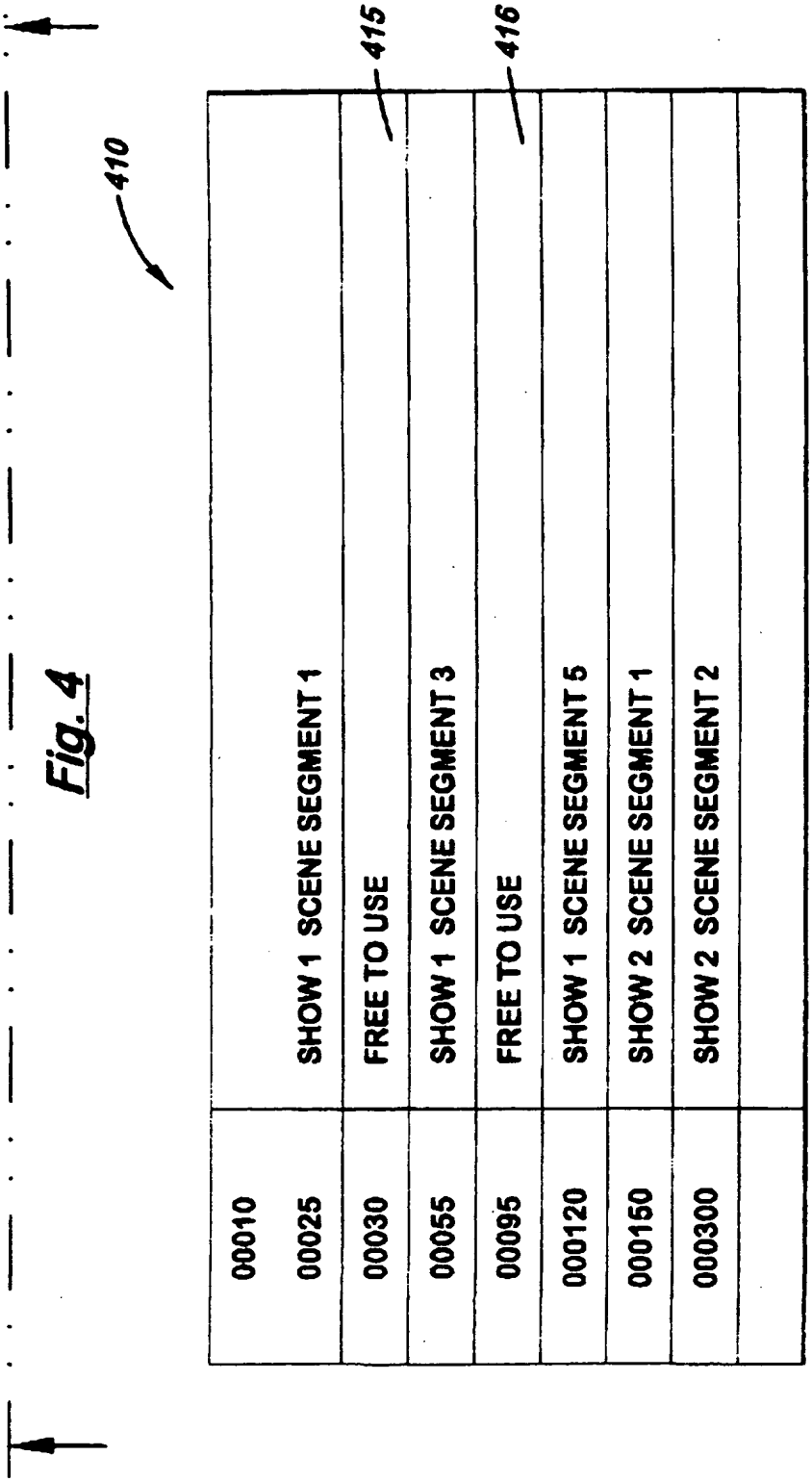
410
415
416
00010
SHOW 1 SCENE SEGMENT 1
00025
FREE TO USE
00030
SHOW 1 SCENE SEGMENT 3
00055
FREE TO USE
00095
SHOW 1 SCENE SEGMENT 5
000120
SHOW 2 SCENE SEGMENT 1
000150
SHOW 2 SCENE SEGMENT 2
000300

Fig. 4

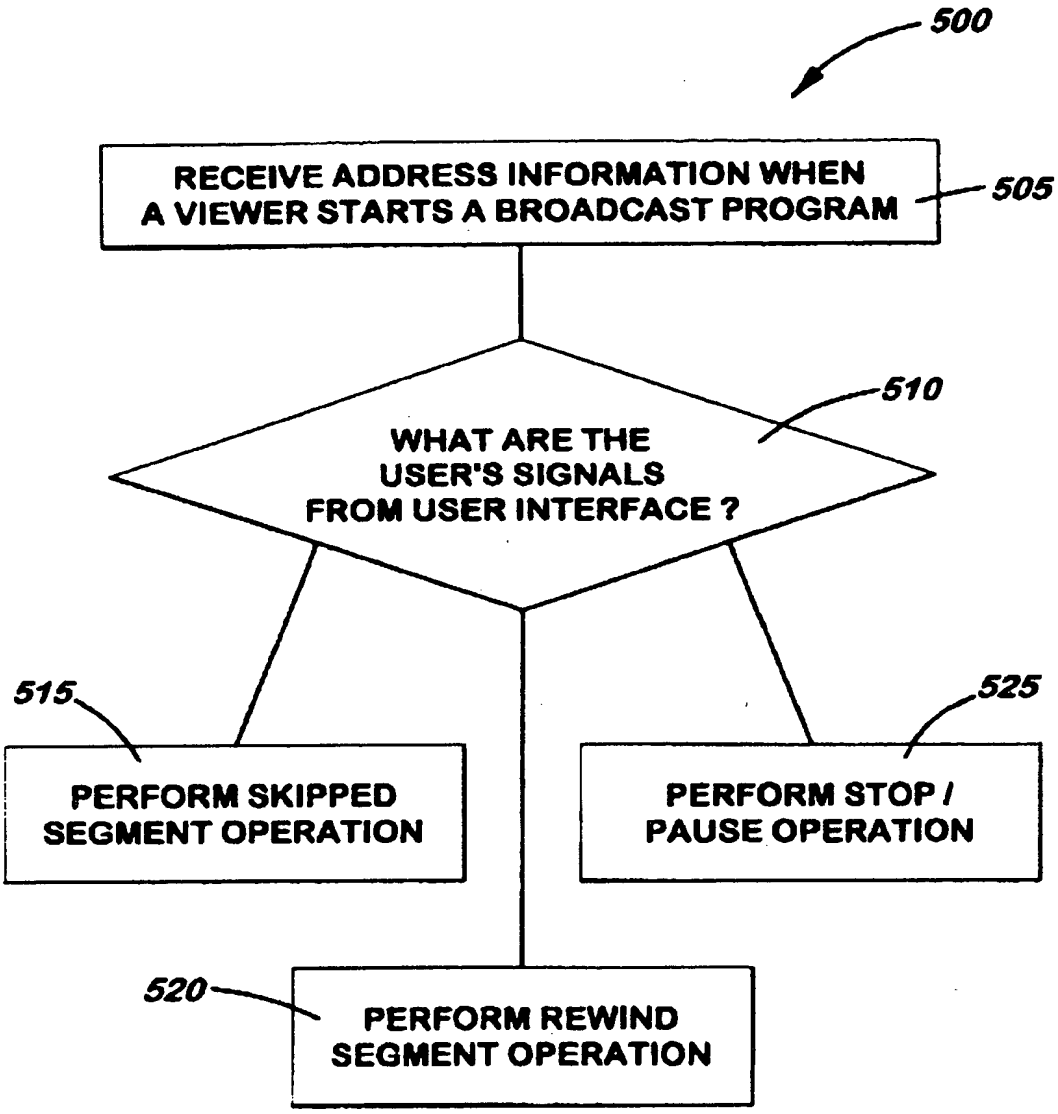
500
RECEIVE ADDRESS INFORMATION WHEN A VIEWER STARTS A BROADCAST PROGRAM
505
WHAT ARE THE USER'S SIGNALS FROM USER INTERFACE ?
510
515
PERFORM SKIPPED SEGMENT OPERATION
525
PERFORM STOP / PAUSE OPERATION
520
PERFORM REWIND SEGMENT OPERATION

Fig. 5

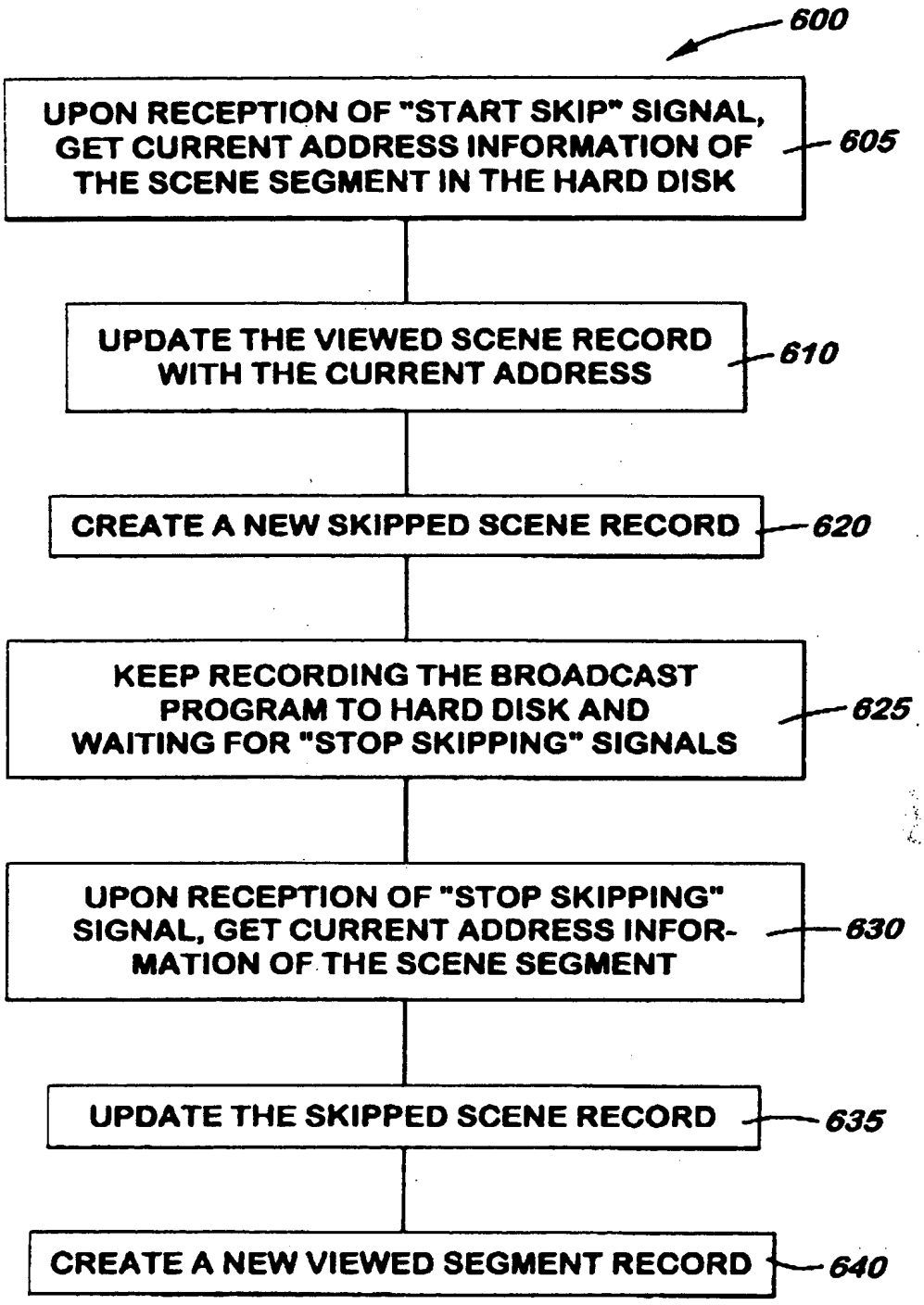
600
UPON RECEPTION OF "START SKIP" SIGNAL, GET CURRENT ADDRESS INFORMATION OF THE SCENE SEGMENT IN THE HARD DISK
605
UPDATE THE VIEWED SCENE RECORD WITH THE CURRENT ADDRESS
610
CREATE A NEW SKIPPED SCENE RECORD
620
KEEP RECORDING THE BROADCAST PROGRAM TO HARD DISK AND WAITING FOR "STOP SKIPPING" SIGNALS
625
UPON RECEPTION OF "STOP SKIPPING" SIGNAL, GET CURRENT ADDRESS INFORMATION OF THE SCENE SEGMENT
630
UPDATE THE SKIPPED SCENE RECORD
635
CREATE A NEW VIEWED SEGMENT RECORD
640

Fig. 6

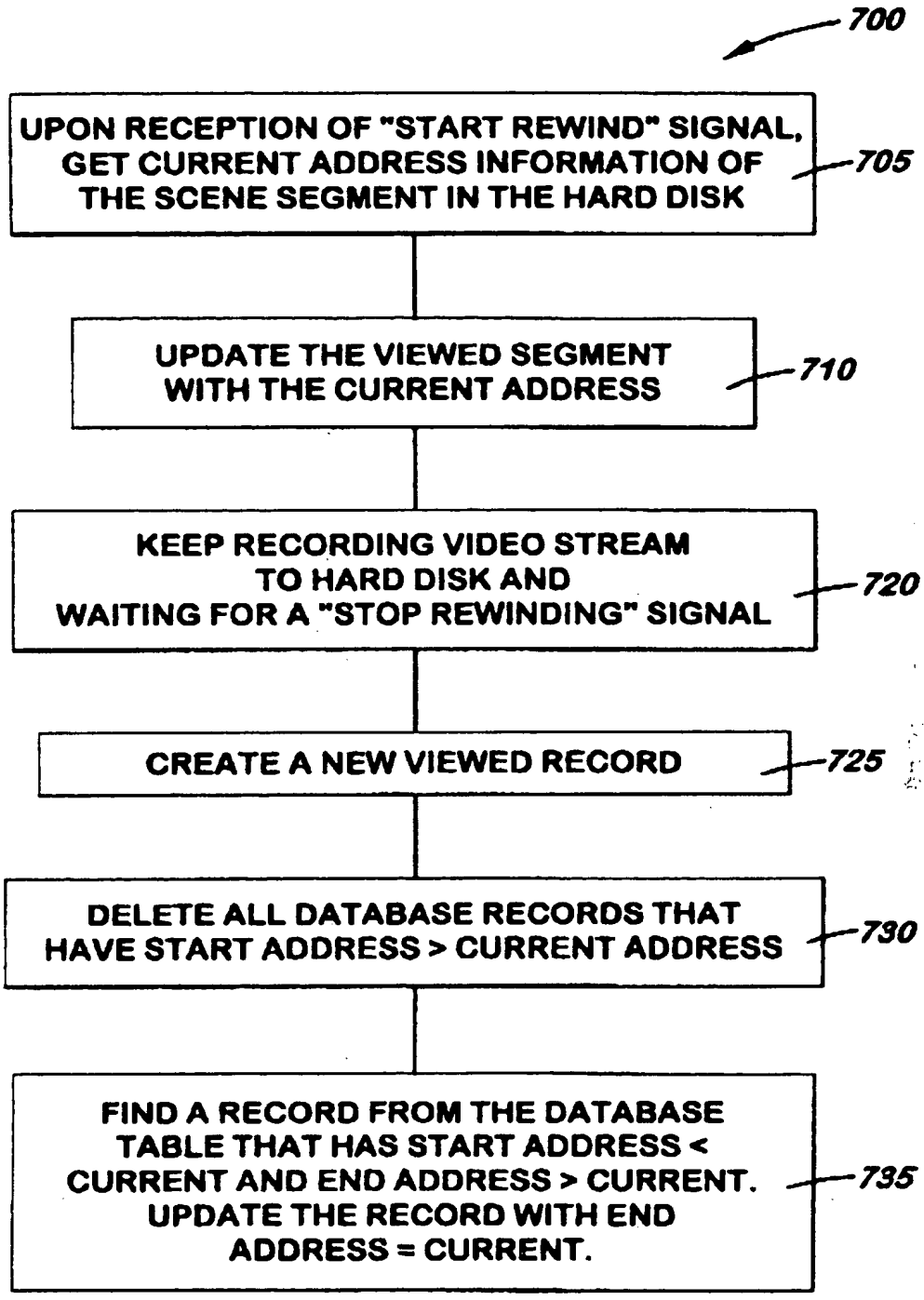
700
UPON RECEPTION OF "START REWIND" SIGNAL, GET CURRENT ADDRESS INFORMATION OF THE SCENE SEGMENT IN THE HARD DISK
705
UPDATE THE VIEWED SEGMENT WITH THE CURRENT ADDRESS
710
KEEP RECORDING VIDEO STREAM TO HARD DISK AND WAITING FOR A "STOP REWINDING" SIGNAL
720
CREATE A NEW VIEWED RECORD
725
DELETE ALL DATABASE RECORDS THAT HAVE START ADDRESS > CURRENT ADDRESS
730
FIND A RECORD FROM THE DATABASE TABLE THAT HAS START ADDRESS < CURRENT AND END ADDRESS > CURRENT. UPDATE THE RECORD WITH END ADDRESS = CURRENT.
735

Fig. 7

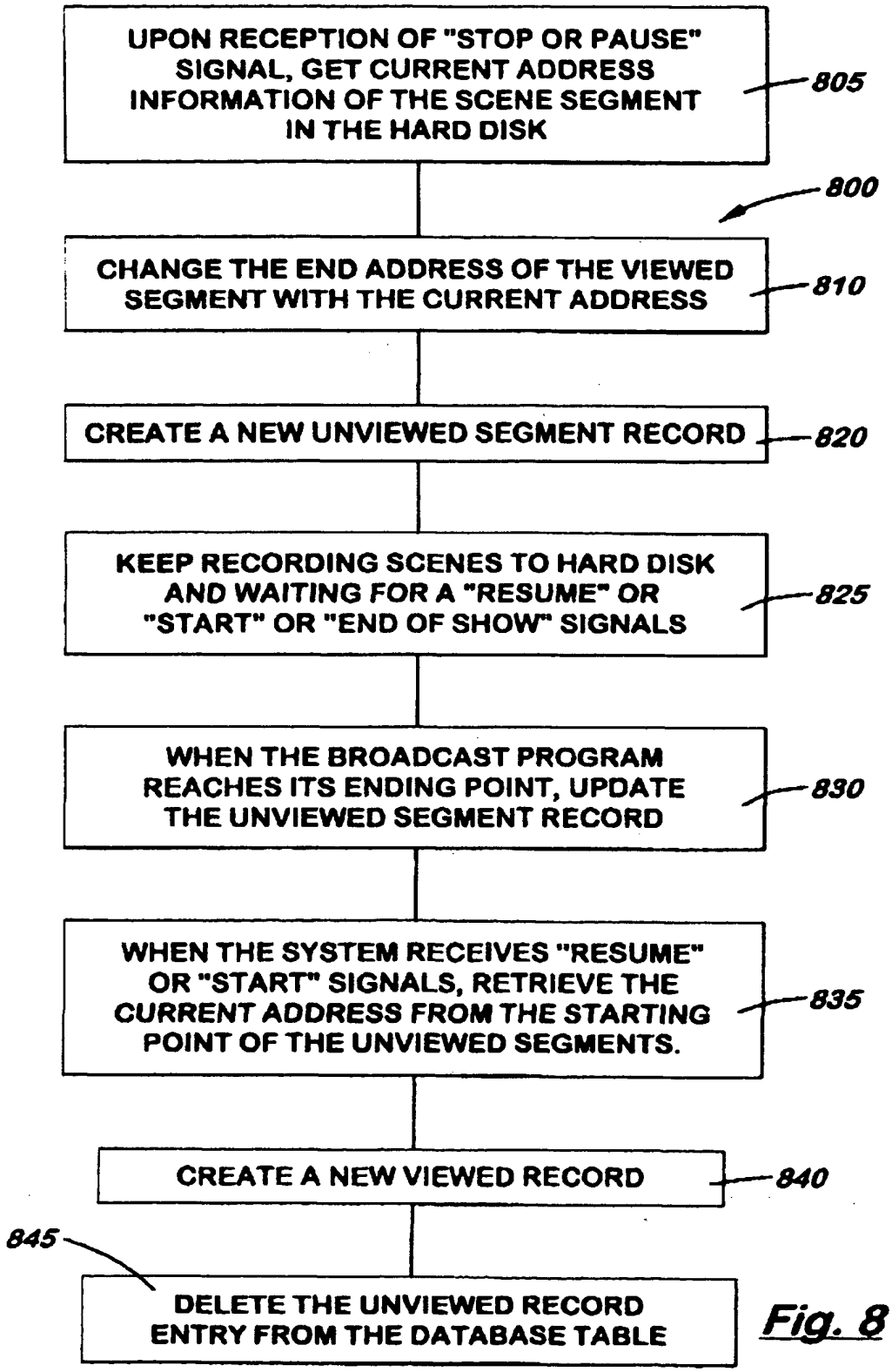
UPON RECEPTION OF "STOP OR PAUSE" SIGNAL, GET CURRENT ADDRESS INFORMATION OF THE SCENE SEGMENT IN THE HARD DISK
805
800
CHANGE THE END ADDRESS OF THE VIEWED SEGMENT WITH THE CURRENT ADDRESS
810
CREATE A NEW UNVIEWED SEGMENT RECORD
820
KEEP RECORDING SCENES TO HARD DISK AND WAITING FOR A "RESUME" OR "START" OR "END OF SHOW" SIGNALS
825
WHEN THE BROADCAST PROGRAM REACHES ITS ENDING POINT, UPDATE THE UNVIEWED SEGMENT RECORD
830
WHEN THE SYSTEM RECEIVES "RESUME" OR "START" SIGNALS, RETRIEVE THE CURRENT ADDRESS FROM THE STARTING POINT OF THE UNVIEWED SEGMENTS.
835
CREATE A NEW VIEWED RECORD
840
845
DELETE THE UNVIEWED RECORD ENTRY FROM THE DATABASE TABLE

Fig. 8

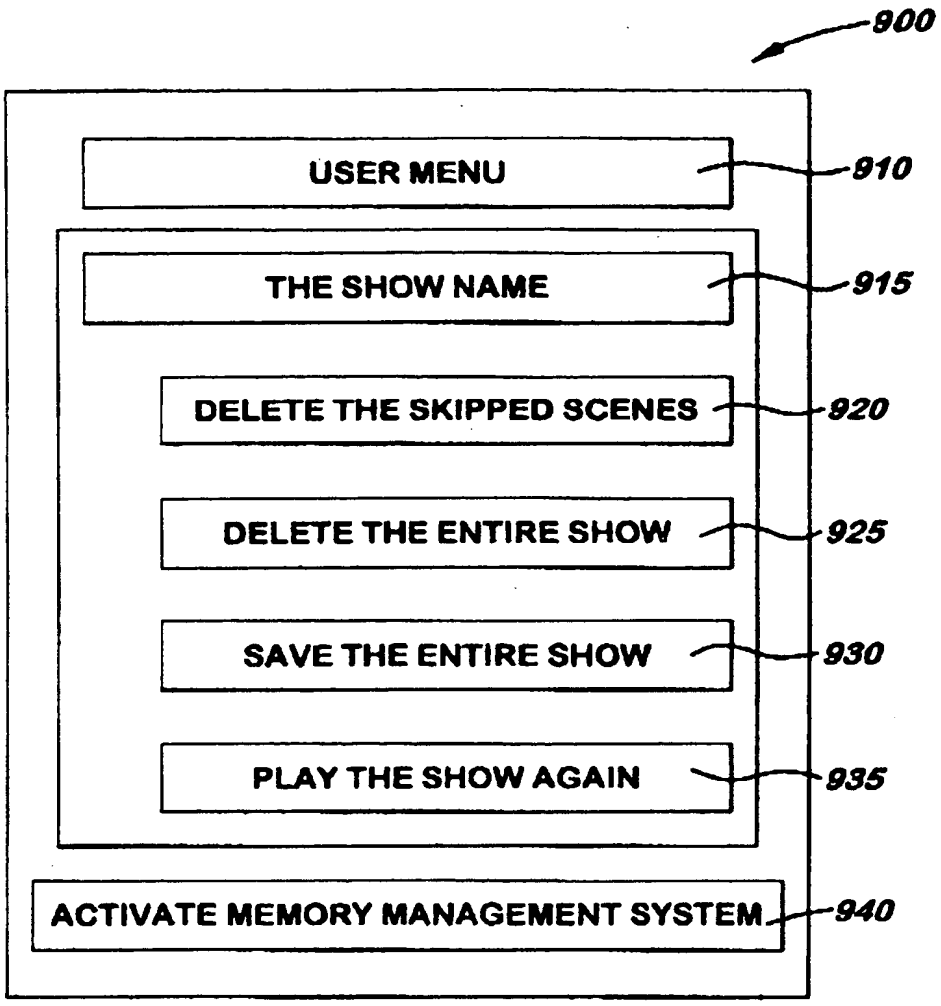
900
USER MENU
910
THE SHOW NAME
915
DELETE THE SKIPPED SCENES
920
DELETE THE ENTIRE SHOW
925
SAVE THE ENTIRE SHOW
930
PLAY THE SHOW AGAIN
935
ACTIVATE MEMORY MANAGEMENT SYSTEM
940

Fig. 9